

REMARKS/ARGUMENTS

Claims 1 and 3-13 are pending in the present application, of which claims 1, 8, 9, and 12 are independent. Claims 1, 3, and 5-12 are amended. Claim 2 is canceled, as a variation of the subject matter previously recited therein has been incorporated into independent claim 1. Applicant respectfully requests favorable reconsideration and allowance of all pending claims in view of the remarks detailed herein.

CLAIM OBJECTIONS

In section 1 on page 2, the Office Action objects to claim 5, indicating that claim 5 currently depends from itself. Applicant has amended claim 5 to depend from claim 1. Accordingly, Applicant respectfully requests withdrawal of the objection to claim 5.

REJECTIONS UNDER 35 U.S.C. § 102

In section 3 on pages 3-10, the Office Action rejects claims 1-3, 5-10, 12, and 13 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,535,412 to Nadehara. Applicant respectfully traverses this rejection.

Independent claim 1 recites, in part:

“a consuming process application program interface
(API) of the circular buffer unit, the consuming process API being

arranged to . . . return a pointer to the consuming process indicating a location in the buffer memory from which to read the entire grain when the addresses do not wrap around inside the grain, or a pointer indicating a location of the auxiliary memory region from which to read the entire grain when the addresses wrap around" (emphasis added).

Independent claims 8, 9, and 12 contain similar recitations. This subject matter finds support in the published version of the specification in, for example, paragraphs [0030] and [0032].

As described in the specification, this subject matter relates to an application program interface (API) that allows a consuming or producing process to access a circular buffer without the need to consider wrap-arounds. See, e.g., paragraphs [0030], [0032]. More specifically, when a write or read would result in a wrap-around in the circular buffer, the API returns a pointer to an auxiliary memory to the requesting process, such that the process may write or read the entire grain to or from the auxiliary memory. *Id.* This subject matter minimizes the overhead during execution of processes that communicate grains of data via a FIFO buffer memory that has addresses that wrap around. See paragraph [0012].

Applicant respectfully submits that Nadehara fails to disclose, teach, or suggest the above-quoted subject matter. As an initial matter, Nadehara is directed to the internal implementation of a circular buffer, not to an application program interface that allows external access to the buffer. See, e.g., column 1, lines 4-7

(describing the invention as a circular buffer controller). Nadehara is silent regarding the implementation or inclusion of an API.

Nadehara is also silent regarding the return of a **pointer** to the consuming process. In particular, because Nadehara relates to the internal implementation of a circular buffer, there is no need to return a pointer to a consuming process.

More fundamentally, the purpose and underlying operation of Nadehara is completely different. Nadehara relates to minimizing the number of wrap-arounds that occur within the circular buffer. Nadehara achieves this objective using a replica write address, which stores a copy of **n-1 leading elements** of the circular buffer, where n is the block size. See column 5, lines 15-36; column 6, lines 3-8.

As an example, Nadehara describes a buffer area including 128 elements, numbered X[0 to 127], followed by a copy of elements 0 to 6, numbered X[128 to 135]. See column 5, lines 40-43. If the buffer were to perform an operation on 8 blocks at a time, a typical buffer would wrap-around when accessing the 8 blocks beginning at element [123]. See column 6, lines 1-8. Nadehara includes a copy of the first 7 elements, such this access would read elements X[123 to 127] from the buffer, while reading elements X[128 to 130] from the copy of the first seven elements. Id. Thus, Nadehara reads a **portion** of the block from the memory of the buffer and a **portion** of the block from the copy.

In contrast, the recited subject matter relates to reading the entire grain from either the buffer itself or an auxiliary memory. Thus, the consuming process need only receive the pointer and read the grain from a location in the buffer or auxiliary memory identified by the pointer. Again, the functionality of Nadehara is completely different, as Nadehara does not include an API, does not return a pointer, and only reads a portion of the block from each part of the memory.

Accordingly, Applicant respectfully submits that Nadehara fails to disclose, teach, or suggest the above-quoted subject matter recited in independent claim 1 and similarly recited in independent claims 8, 9, and 12. Claims 3 and 5-7 depend from claim 1; claim 10 depends from claim 9; and claim 13 depends from claim 8. Claim 2 is canceled.

For at least the foregoing reasons, Applicant respectfully requests that the rejection of claims 1-3, 5-10, 12, and 13 under 35 U.S.C. § 102 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

In section 2 on page 11, the Office Action rejects claim 4 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nadehara in view of Allegedly Admitted Prior Art. In section 3 on pages 12-13, the Office Action rejects claim 11 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nadehara in view of U.S. Patent No. 5,477,475 to Sample.

As an initial matter, Applicant respectfully disagrees with the assertion that paragraph [0005] of the published version of the specification is Admitted Prior Art. In particular, with reference to MPEP § 2129, this section of the specification does not explicitly reference “prior art.” Rather, the specification refers to the implementation as “typical,” which, based on Applicant’s understanding of MPEP § 2129, does not constitute an admission.

Nevertheless, Applicant notes that claim 4 depends from allowable claim 1, while claim 11 depends from allowable claim 9. The Allegedly Admitted Prior Art and Sample fail to remedy the deficiencies in Nadehara described above in connection with independent claims 1 and 9. Claims 4 and 11 are therefore allowable at least on the basis of their dependencies.

Accordingly, Applicant respectfully requests withdrawal of the rejections of claims 4 and 11 under 35 U.S.C. § 103.

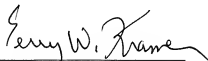
CONCLUSION

In view of the remarks above, Applicant believes that each of the rejections and objections has been overcome and the application is in condition for allowance. In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account. Should there be any remaining

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issues that could be readily addressed over the telephone; the Examiner is asked to contact the agent overseeing the application file, Aaron Waxler, of NXP Corporation at (408) 474-5256.

Respectfully submitted,
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